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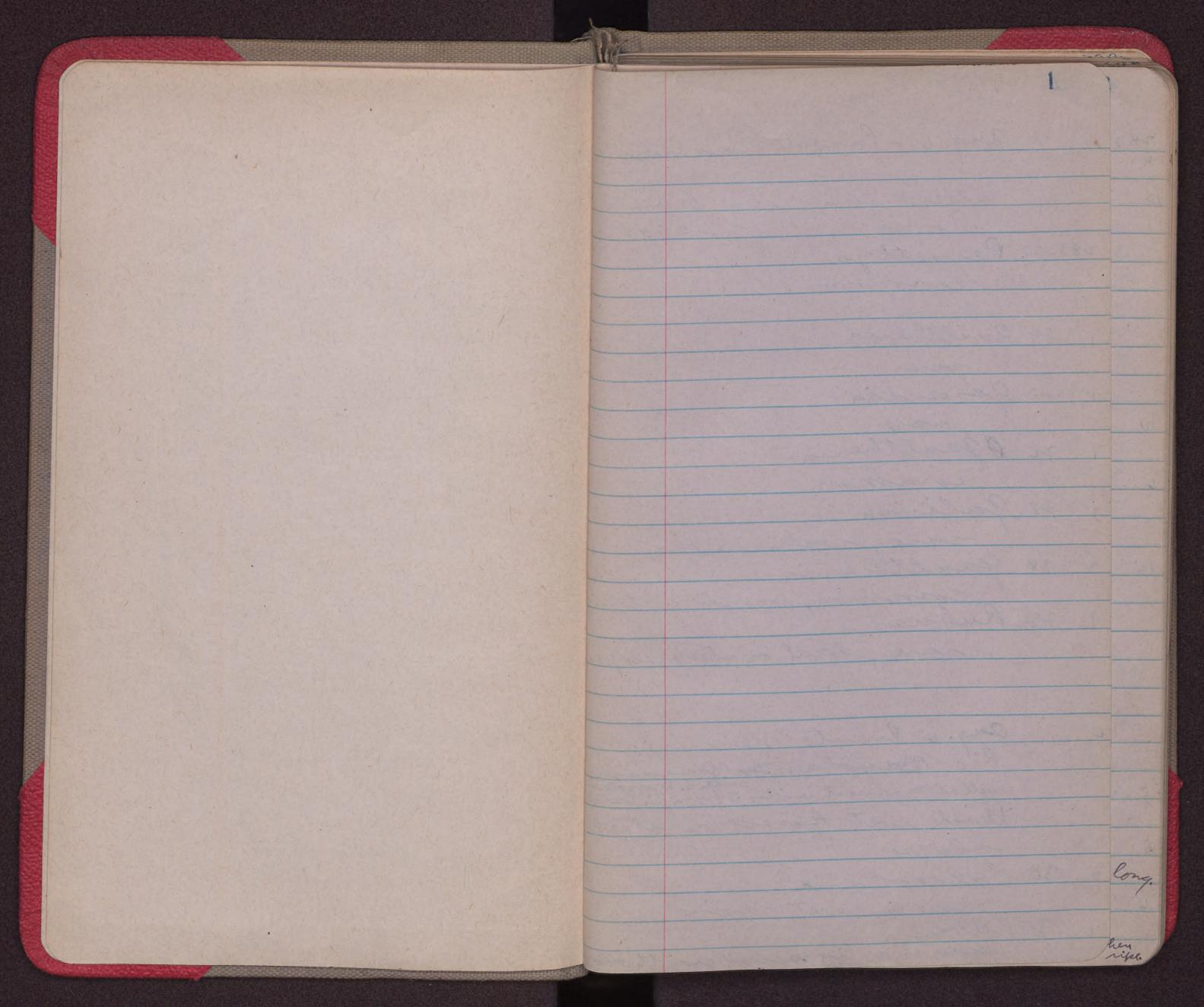
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1947 Pen Cuzco - Paucartambo 3 Jol ang. 4 - Passole acanacus 1309'5 7/32 W steep sparsely brushy
slope 3900 m.
28323 Pernettya (2) beriez lavender, said to be poisoning macha macha 24 gaultheria fruit black. 25 gerardia recumbent, plowers berries black, nare 26 A gaultheria edible. common 3 27 galium prostrate, fruit rare, roch crevie freit black 3 28 Jaultheria common, mostly sterile 1 29 Rubus small shrub; fruit rare, local on steep sloper 3800 m. very large, free from receptacle - (110) aug. 6 Puente Mercurio, Rio Mayotambo yanamayu well above where it writer to form Rio Cornipate Jambonayo thick wet forest on steep 2500 m.(2.) 3 30 Calceolaria If subfrutescent herb 2 m. long. rare in wet raving flowers yellow. 1. 31 Rubus immature, said to be black + eduble when common in second growth slope

1 1947 Pen Cuzes - Varicartambo 5 28332 Calceolaria herb im. tall; flowers common in wet places bright deep vange. 100 33 Cenchma pubersens tree 18 m. tall; leaves common locally on steel dull above; flowers very pagnant, crimson outside, pinh unside tube, pale frenh inside Flores. trutingected with Elsinos cinchenae. (barls sample A) 34 Cinchana pubercens same, tree 8 m. tall same (Varle nample B) 6 35 Palisourea slender shrub 2 m. tall, in undergrowth in dense fact on steel slope 15 36 Cinchona fruit green. tree 10 m. tall, voem. thick, commen locally onsteel sløfe, mortly flower crimson without and inside tube, lobes frinks within, odosless (only one seen); fruit mostly immature, apparently infected with Elsivor. (Bark sample I) 5m 37 Cinchena rame, the they ms. fly. (Parle sample C) 5 38 Cinelina same buds pinh. same Det. P.E. Berry, 1998 (back sample D) 6 39 Frehsia Sanctae-rosae O, Kuntze should 2 - 3 m. high, common in brush noar flowers scarlet

6 1947 Peru · Cuzes - Paucartambro 7 28340 monning vine-like, flowers 4 local in thick tangled 2 41 Styrax deep purple. slender shrul; Ireal in undergrowth flowers white. 4 42 Merterg granadensis wet place at side of prostrate; flowers pale greenish; fruit wad juicy, red. 4 43 Liphocampylus elingate shrub, brushy slope flower mermoli zearlet, lober greenish yellow. 4 44 Fuchsig austromontana I.M. Johnson weak show 1.5' m. tall, Common on brushy slope DEt. P.E. Berry, 1998 flowers crimson. aug. 6 - Rio Maggotamas Below Puente mercurio 2300 m.a) steep slopes of slaty rotten shale, second growth brush. 215 Mélistomitacere emman. shoul ? m. tall, flowers crimson-purple. 46. Lipshozampylus per herb 1 m. Tall common, open sloper flr. greenish yellow, red vutices of tulp, so anthen black. 2 147 Vennonia herb 1.4 m, tall, common on open loper flowers purple. 43 48 Frechsia Chloroloba I.M. Johnson s tuberous rootes sleveler · DEt. P. E. Berry, 1998 shrub flowers pendent, vermillion with gleen lobes.

8 1947 Pen Cuyes - Paucartams 9 287 49 Polypodium Ris Coranipata Yrabel, very reveely cultivated land 50 Enpaterium her mitall, flowers 5 51 common white. herb m. tall; flower wrotet. 52 gardenig cultivated shrub; flowers white, tragrant. 3 53 acalypha shrub 2 m. lall. 4 54 Centropogon elongate shruly; flriver vermillein, lober yellow, column fral yellow, enther blacky. 31 55 Cinchona (Ladenbergia) magnifolig 191. tree 18 m. tall, 40 cm. thick; rare, or in clump of trees leaves sub-glossy; flowers on wet bench above river. white, very fragrant with gardenia - like solor, coolla lover somewhat fleshy, (book rample) fruit mostly immature 54 common in cultivated field enert flowers fainlish white 57 Drymana common weed in cultivately field 58 Lipanina iver, wet ground sprawling should stong lemon grass

Curyes - Paucartambo 11 Or pape ferwerd northern ones, though the florers are red almost as in the Encol Julesons. at fanta partel is another kindling, breaky called caliaga (28355). apprarently my large quantities were harvested there during the war. (Owner of f. y. says much was experted, all of it "calisaya" which here is Ladenbergia magnifolia (28355). This is hardly Chely but should be cheeked above, near where the R. Yanamaya & R. Mayufambo unite to form R. Cosnipata are vother Einehman one a fadenbergig magnifolig type with leaf blades desurrent on petiole, the other a unchona pubercens (1) type similar to that of finillabamby, also with leaf blades decurrent. The frink flowers of this have no oder!

Euges - Parica tambo 13 12 1947 Pen ang. 7 - Valley of Rio Cosnificata just above fanta yearel road cut in wet frested region 28359 Lycianther flower green campanulate. i 60 Besteria leaves thin-fleshy, pale ammin beneath, veins red; flowers billiant vermillion, oblique done I Aug. 7 - Rio Hayutambo, just above where it joins The Rio yamamaya to from the Ris Cornipata 1800 m. (2) dense wet frest with tangled underbrush on remnant of old alterial fan with buge boulders 6/ Chuaquea tangled masses, climbing; most plants fruiting or just part fruiting here. "zara zara". 12a L2 Cindima (Ladenbergia) tree 12 m. tall, 14cm. thick; back only somewhat bitte, fruit immature. ( barle sample F) 16 13 Cinchona probencens var. tree 10 m. tall, 10 cm. thick, flowers deep pink, odnless; fruit immature (back sample)

Cuyes - Paucartambo - Creyes don 1 1947 Pen 2007 aug. 7 Paso de acamaca, Esta Misposta breadwater of, Rio Corrisputa 28364a Jalium hypocarpium ving-like; fruit orang, fleshy rocky roadsides en steel grassy slope +3364 Lyerpodium evert. 65 asplenium strictly end 66 Jamesonia common locally 61 Jamesonia emm. shrubby tree 3 m. tall. none flowers companiele, yellow other dusted outside with purple. Lacsahuaman and canyon 170319 71°59'W below mins 5 69 gnaphalium canyon walls, common transhed sprawling herb, 1 m. long, (mostlydied up). 70.
dry canyon walls, rare leafters, stem tronze purple, pederees and orany same; to periantly Granched at base. flowers mange, stigma deeply 4- hid, lobes spress; 71 Cenothera now on dry carryon wally

Cuzes Cuzeo 16 1947 - Pern Elever yellow. 28372 grundelia common on dry hills, mostly died up 5 74 Bacchaint in day hilly 5 74 Baccharis peruviana Cuate. Var. det. J. Cua trecasas occasional on dry hills 75 Daneus between rocks in ruine 76 apium prostrate between rocks in mins 3 77 Galium (Relbunium) between voles in min. of temple. prostrate, purple; fruit white, fleshy. below fan kebastián, 7 km.

13°33's

below fan kebastián, 7 km.

10°56'w

10°56'w

10°56'w

10°56'w grasy salt flats and wet sandy iver bed. 4 78 Cascharis tricuneata v. lineata (Cuatr) luato custrecasas prostrate, gray-green common on banks and det. J. custrecasas raised places in grassy flats 1 79 Jentiuna sedvides plant slightly glaveous, occasional in very salty -somewhat fleshy, flowers white or slightly lilac, with green stripes outside 80 Hypochaeris anding common on wethbahly along niver form liques while, tinged with bink, reterones frufile-lang without

18 1947 Pen Curco - Curco 19 leaves smaller and nurrower en sund than in wat forming small circula, common on wet sand and in running water mats; leaves fleshy, flower white 82 Spergularia prostrate; fleshy; flower 33 Ruppia gruple. forming large masses, 84 Pora ming water immature, us fruit. spreading trift in wet sand, rand. 39 Juneus apreading derse trifte 86 Cotula dense trefts; leaves 87 halicornia sub-fleshy. fleshy; spriker terete in very salty flat, encurted with white powdery salt de borit much thisher than stem, 38 Juneus very common ingrassy flats 39 Plantago in very salty place, enerusted with white powdery self deposit 90 Cotula leaves pluish green; bracks purplish, dish rare in grassy flat yellow. dish yellow 91 Senerio rare in wet sand 92 galium on dry bank around i edge of salt flat prostrate, leaver purple, fruit white fleshy.

20 1947 - Pern 21 Cuyes unbamba - calca ong. 10 - Rio Vilcanota about half-way Till W15 17's between Unibamba and Ollantaytambo,
Prov. Unibamba, Defit. Cugae dry salt folat near river 2 900 m. enest, fleshy; flowers white. 28397 Spergularia sermon, mostly dray or eater by sheep Prov. Unbamba, Dift. Cuges. 94 Nicotiana terrores of Incair un 2800 m. show 1 tall, malodrous; common, weedy, the try to the agin. leaves gran-green; flower light green, lim patent. 3 95 Micoliana shrub 1-2 m. tall, malodorous common, weedy leaves gray-green; blowers light green, limbreflexed. 96 Tillandsia tufte, gray. 97 Heliotropium occasional leaves very rugose; flower. Cavendes. 6 98 vocasional much - branched, odnous suffriterent herb; leaver glancous; flower fruitele-black Rigiticanota Pisak mins, Pisak, 71 mb 1997's Prov. Calca, Dept. Cuyer crevises in stone walls of min. 7250 m. inse fruit yellowish 99 Solanum leaves glaveson, fungue-28400

22 1947 - Pen Curro - Canclin 28401 Conyga flowers and bracks purpletipped. 02 Coreofpsis 03 Drymania flower yellow. days plante almost dry, diffuse. 04 Enstephia sterns ind wariges tronge prople perianth red with yellow- green ups. ang. 11 - Leaving Cuzes by After aquas Calientes, train, went down the valley where there is a boiling of Ris Huatanay, then up & spring of but water, the the Rio Vilcanota. The lower landrage become R. Fratanony is a curryon fure pura, with with steel sides, covered seree sloper on the side, the great chain of snow by Puya and other Cereus, as well as shrules, with capped peales at the left ending in the nedo de a flat floor. The R. Villeans. Vilcanota. The vegetation is broader with cultivated flats and salty grassy is sparse bunch-grase with small of Typensphylling one, some very met. cushrons between, these Eucalyptur is very common. a golden-green. Then planted. Extensine oak is no cultivation here flats below Licrani. Valley lined by dry bills, cultivated. though greofile are occasionally seen driving bends wherever firssible, steels sløpes made less susceptible of llamas. To the left, men to ever by half-terraces the top are frozen waterfalls. Patches of a gray Puryo on stopes

24 1947 Pen Cuyes - Canchis 25 Org. 19 - La Raya restop of 71'1 4" 905 proddles and ditches frees bet. Vilcanota and with agolla, ets. found, with several bunch grasser, wet in Islaces and supporting 18495 Ozolla floating in ditch reddish, finn. heads drooping. 07 in græss enshrøn langedry tryte common, læggedig tufter

common

og Distichia muscoide,

common flat more a less dry ground short trifts flat prishly but yialding On the Purara side the Mean Lanta Rosa a slight descent is gradual through amount of cultivation aflat valley. Here are legins. It is so slight as to be unimportant white cushim a Opuntia and does not increase on the sloper palcher of I mya, much till after ayavari. The floor is grassy and large herds of llamas, Even as far as Tirapeta cattle and sheef me grazed grazing seems much me on it. apparently burning simportant, esp. on the And flat walley flow. is much spracticed

26 1947 Peru Puns - Language Below Rucara the valley This continues to fullacq greatly broadens out a bit more cultivated until below tax it Toward there become a wide grassy In the playa is an plain. Still grazing unional species of Buddlein, with orange serve to be the main industry, except on flowers, entirated rises, hill, & the ar un amanental tree surrounding stople The grass has in wost place been grazed too Aug !! Juliaca, Pur Jame, Deffeller, 70'8' W Buddliga compact tree with round 28410 cultivated in playa crown, ym. tall, 10 cm. thick; flowers deep orange. kolla" Vargar told me in Curenthat Prymophyllum is an important! frege for alfracas.

32 Overs, - Cochabamba33 1947 Bolina Horas Veiner mer above Tolaspalea the sloper of the sungen and more dominant as betome bleepe and tinglie altitude are reached, grassmere dominant. In occanional flat Develues vegetation is practically v3411 is still dorninant. a mexture of brewen In the headwater and in the grass and the there, pass (4+37 m.) grasses tabre over badly over-grazed by almost completely. There are sleets and Cornas. still cultivated pratcher. ME aug. 17 Tolapalea In the pass 38411 is still common. 3906 m. minture of # 28411 & bunch 1705215 66" 48' W grass of several st. on benchan navin walls of decomposed well green during shoulds ry to 4 dm. 18411 Parastrephia lepidophylla (Wedd.) Cabrira evolvninant det. J. Cuatricasas resinous, floreres yellow, several plants requirented. is present. This region is The gray spiny strule overgrazed. The works reappears on the cochabauba are sedermentary bed, and of the prass. a mixture strongly tilted and of grans and 2841, is continuous (3998 m.) Here a small astrogalis and a lergia (?) become districed. Down the carryon the secubly regetation near becomes richer and constone common. Here also is a saling Ever appear. also folanus ?? 413) flat covered by a close grass tup. In wet places Hypochaeis andiral? Barnadesia.

Davy. 17 Cong Coma, Ris angue 13578 m. (m.) 28412 Senecio pampae Lingoh. det. J. Custressus common erect, branched at brance 0.8 m. tall, flower yellow. 13 Lolanum Aug, 17 just bolow Coma Coma 3578 m. (m) Rivague should mitall, spines common on steep wall of decomposed well. mainly distal. for beene flat and. glærece orfopeans in Venther and embanlsmet Aug. 17 aguas caliente.
flatin, Ris arque, Goth.
canyon with dry fruity walls 19 Cupressus young tree is m. tall, planted new or, station blush green. Trees 4 m. tall, weaking habit plantes near n. station.

Cocha-lamba 1947 Bolinia 36 Lalving, Frankering (28418), Helvi aguar calientes alonava (?), Carrie (28 417), Athinis molle appear several compositae also on canyon walls. become common, also also luya and a slende Buddliea (?) yellowish persers, as well as the thirty one mentioned about Micotiana glavia is common. The regetation is more luxuriant but still a dry acrub. mortisia enters. Pofrulus (Lossbardy) Eucolyptu globalus, + Aulig (284/6) are cult. A red- jumple fld. Leroph. (or Lal..) beemer common. ang. 17 Tacofraya, on Ris 3148 m. [m.) steep brushy canyon wall erect sparsely branched 29417 Consia shrub. occasional straggling shrub, 18 Franser leavet grazish. common amalte be is mitally 19 Solins molle Il owner when broken fruit sines emmin oder when broken, fruit wines erest shrib 1.9 m, tall. leaves no Nicotiana glarien common self-on small gravel flate! semewhat alonewry, flowers yellow.

38

1947 Bolivia

22 Storing

commy

23 Anddliea 1 occasional

1947 Bolivia

Inpa-Inparsona great alkerial fan, dry y brusty with cacti, former, etc. Her The m. sterte to clink, my the broad valley of Ris Ulchi, greend and more regetated on its floor than that of Riv Gerger. a Apondies (?) is forminent, also Prosopis. near Guernetins (2378 m) a Khragmiter a anundo is commen along dry waterwars. (this is the station for Capinota). above her the finest on sides and floor of nalley is them-frest Prosofies, Cerem, Solumns, etc. along the river ( much mere writer than Rio Right are kalix and small inigates spatches. The tills are bedded shale. futhe branches of several I norsopis were seen what appeared to be unbelievely large tree smails, 3-4"lovy and half that thirty dull charactet from mottled.

The trills above Chalamore and dominated by a fairly large much branchod Cerebr in placer coderninant with posopis. The sive is allealine or auten with track salty led and Vistichlis Tarolani (2450 m.) is surrounded by an artificial frest of Encalyfitus + Lehinus, planted so regularly that a German must have done it. above here the walley narrows, the walls are brushy. When the slopes are not too steel there are small trees. The bottom is of low words, mostly Aghinus. 9 red-fld. Tecoma breve, too, , Cortaderia. Upward the valley widens and again, the floor with Salix & feliner + cult. Curalyptur. Here is Suti-Collo (2502m.) at Vinty the on, crosses into the hoad cultivated cochabamba Valley (Ris Rocha)

1947 Bolivia

In the orchabarnova Valley, which is broad and flat, Eucalyptin is the most expressed by appears dry at this season, and has an aspect almost like forther California with dry hills surrounding a flat plain with allowed from

ling. 20 - Cochalanta Te Totang by road. There is a eng gradual climb the up dry country, to an altitude of about 12000 feet, this in June prima. brinch grass. On the way are a few fratcher of the dry thon frest that may (au Cardenal Than been the original vegetation of the region. Before the gruna is reached and on the other side, from the free down to Total the comment struck or small till is Polylepio of. It does not from a dose growth but is abundantly

there are many fruit trees, peacher, pears, & apple, but according to resident americans only the peacher are good.

becomes about 20 the cm.

thich, covered with a

reddish coppeny, expolisting
bank. The trees reach 5 m.

Feaves reduced to about 5 yets.

Totag and the road camp

at km. near Monte funcs are
about 7800 m. alt.

Wheat is the main product.

Toward Totag the bushy

vegetation becomes more

luciniant but is, of

course badly eater by sheep.

Cochabamba 44 1947 Bolivia Me Jan ang. 11 - Kism Upper canyon of Rio Huairamayn (Rio thick "firest on steel 2 Løfres.
2 Barraderig polyacantha Wedd.
common det g. Cuatrecasas.
25 2700 m. shrub 2 m. tall, andring; flowers crimson somewhat aromatic should repte 2 m, tall; common in brush in offenings and mean stream Howen very pale lavende To white . (looks like Hedgoti, sund bon superficially). "muma blanding veno climbring in aiganing 24 Mritiaig lanata R. F. det. J. Cuatrecasas small tree, heads occasional in brushy arcending, rays vermillion woode along trail near stream vine; filles not 27 Cajofiling stinging; flower orange red. occasional in trusty words along trail v aug. 21 same, about Sihvenia 2600 m. ent ving-liby; corvers 28 Sylveampylus red, esturn yellowish, rale in frush on vertical anthen gray, stigma greenish bank above hauf decumbent diel - green 29 Drymany her. along trail shrub, flowering from 30 Centropogon common along trail I to y m, tall, sparsely tranched; flowers pale green except fromish anthers, faint elusive strucker like of the

& Cochabamby 46 1947 Bolivia 17431 Nivoliana should sof & 5. m. Call. common along trail flowers white tinged will, Ernge-prigle. strub a small tree 3 V Senecio cabrarae Custr. det. J. Custrocasas common along travel 5 m. tall; rays white, distr dull whitish. 33 Frichaig boliviana Carr. 1998 show to 4 mi tall. flowers pendent crimson common along trail 34 Nertera granadensis prostrate; fruits common on open banks red, yurry. aug. 27 - same, Charetarume just below filmency wealt, clongate sparsely 35 frehry juntasensis O Kuntas brushy banks DEt. F.E. BEVry, ! transled shoul, leave just appearing; flower pendent, pringle. 34 Linilar small vine; flowers maron with yellow anthey. flower bushy bank 37 monning flowers purple. men along trail

menterg granademi. red; flowers yellowish common along trail and under trees prostrate, forming a 39 Connula carpet; flower deep abundant all along Trail puple, q. 40 Corynuly som flowers of

48 Cochabamba 1947 Bolivia aug. VI dame anchy greerada 2400 m. trustry frest along river tree 10 m. tall, trunks 28441 Cinchona pubescens var. indined with orect bandle, occasional, in small trunk 20 cm, Chick; groups or "manchas" leaves dull above, ming and petioles green, rearrely redderly; stipules erect, green; flowers crimon without, loves find within, very fragrant; fruits reddish. Vaile sample from evert branch.) 42 Minning strule 2 m, tall, leaven dark green; flowers deep indigo blue with yellow-green beel. erect struct i.i m. tale, thyma 4) Palicourla rare, along track blue - violet, flower, blue. erect in tall, fruit 44 Psychotria name in strady undergrowth, white weak shrub to 4m. talf, tending 4) Fuchsia flower vermillion. common fleshy, odorlen; spike, 46 lefreromia rare along base of cliffy by trial herb 1.5 m. tall, handred; 47 Physalis flowers greenish white. excalat base of diff.

Cochabamba 50 1747 Bolivia 28443 Liphozampykus vene-letre; flores vermilling nare on eliff by waterfull with wange - yellow love, Cotumn yellowish, anther gray. 49 Cinchona pribersen va. tree with several trunks, up to 12 m. tall, occasional, this on vega 30 cm. thirty; leaves of river. dull to subglossy above, vein and petroles green to somewhat redding, stepuler green, ereil; fruits immature, redderly. (bark sample) lactiferous should, 50 Cherry orasimal on eliffe tales while; fruits 51 Cinchma
orcasional in words
moralis of ravin above rivey cream-white. hel 8 m. Call, Idm. thick several small trunks; leaves dull, slightly viridereent above, veins and petioles searcely reddish: styruler reflexed as slightly presistent, fruits reddish immature (barle sample.) Les 4 m. talf, an 6 cm. Thick, 10 52 Cinclung transhed at base; evs. same. terning red when old (back sample)

Cochabamba 54 1947 Bolivia of Rio Malaga, va 458 Fuchsia 2500 m. (e.) shrub 1.5 m. tall; flower in frendent rucenes, occasional in undergrowth, brypanthium dull flesh-bronze, covela shrub 1.5 m. tall: flower scarlet. 59 truchsia occasional in second growth brush in sleep slope 60 Calcerlain yellow. common in undergrowth on steep slope semi-scandent, probably 61 Vacernium occasional in their woods Mighrytic 42 Cinchona degeadent overde small tree 4 m. tall; leaves badly eaten by a hairy lefishofterous lason at top of beiff deep purple beneath, dul green above; fruits reddich green. (bark sample) 13 Cinchona small tree ; m. tall 4cm. Thick; leaner dull green above, trongspurple beneath; fruit greenish. (barls sample).

Cochabamba 58 1947 Bolivia this valley seems whose aug. 24 same feen rejuvenisted twice, leaving 2300 wooded sides of deep raving of Groad bencher both temes. niver cut in flat bed of The bottom of the naven valley found- growth es is a narrow twisted brushy woods, with gorge only a few m. with, Escalling, Myrica etc. through which the river rages, carring the compact sedimentary rock into . begane frims. 28470 Paceliaris venosa (R. P.) DC. det J. Cuatracome.
common or steels rocky end bushy berb im tall, very biller, raid & be used as remedy for fever. 3lopes 71 Boneria. erect, up to 1 m. tall, averdy side of trail flowers white small tree 4 m. tall; 72 Escallonia flowers white, common on sleet sloper shrubby tree 4 m. Tall. 73 Myrra common or steel sloper shrub 1.5 m. talp. 74 Clethra occasional on steel sloyel shoul, up to Oile m. tall; 75 Gaultheria flowers pint; fruit black. common in brush on ridge prostrate; flowers 76 arenaria white petals entire common along trail short reandary; to spathe greenish yellow, rans on vertical earth bank spradis green, turningypllowich. show in to 0.4 m. tall, flowers. 78 Janlheing common in brush in ridge

Cochabamba 1947 Bolivia 18479 fizyrynchium vecasional on steep ridge 80 common caesfrits 4 pert; flower - yellow, ephemeral. suffriterent herb or should up to 2 m, tall, rays bright deep yellow, dish dark brown. showl 0.3 m. tall, flowers scarlet. vine-like, 2 m, long, climbing 82 Jalium hypocarpium (L.) Benth.
rase on steep ridge. in busher, fruit crange, fleshy. erect should, up & 1 m. tall; 83 Frehrig flower realet vermelling. occasional on steep slopes tree 10 mitall; leaves dull, 84 Cinchana oreasional on steel, slope just above rim of grage. green above tronge-purple beneath the stipule som reflect (tree in fruit, leaves tradly cater by meets only specimens served wie from trunk sprouts, as others fell in river) (back sample). scrambling struly, 85 Vennig common in brush along trail flowers printe, heads secund, ered should 1.5 - 2 m. Call, 36 Frelisia and near electric plant

87 Fuchsia specimens from several); flowers deep crimson; fruit very large. evet shruber im tall; flowers in pendent cong common in brush new fruit black, glossy, electric plant

Cochabamba 62 1947 Bolivia leaves green breneath; ang. 24 - slopes offere electric with reddish veins, stipula grant (brought in by local people reddish when reflected. 28488 Cinching occasional is wood. vene with flowers firm, 39 Tropacolum wary in texture, mos crimonoccasional magenty with maron scales (petali?) in mouth; fruit green, very purgent these stopes are of shirt. They ang. 24 - sleep side of valley have on timberna, as far as seen near bead of Ris Malaga; and few kubraceas except galium above Inca Chain, sleep, wet thickly wooded o Vintera. sloper, cloud-frest. prostrate flowers greening go Mertera granadensis (L. f.) Prug yellow, fruit searlet, common on banks and cuts along trail should from near 91 Centropogon base, 1.3 m. tall; calyx rare on steel slopes bronze; corolla dull red. Column red, anther Alachish with purple hair, stigmen dull pale greening. 1 galium 1 rare on vertical bank prostrate.

La Vay, Min yungas 64 1947 Bolivia « aug. 27 - sloper west of La Cumbre, 4500m 28493 Werneria

is 14 Pyenophyllum

common dense custrion plant, fle, white dense voft oustrions. ang. v7 - same east of ha Cumbe Vros Aler yenge 4 600 m. puna, to loose shall dense tufts 5 95 Stipu common dense terfts 96 Stippa common 2 97 common 2 98 Pysnophyllum common losally Tupt. soft herebion 78 500 Lenecio adenophylloides Sch. Bip. det. & Catrecasas devang much branched showly,
i emmon flowers dull yellow. orcusimal aug. 77 Unduairi, Rio Longo 16 16 5 steels volly slope with spaintrush

Mr gungar 66 1947 Nolivia 28502 common suffriterent beek up to im. tall; flowers deep cimens showl in talp 03 Jaritheria common ang. 27 - Chuspipata, Rio roal entities cliffs postrate; floreres yellers, fruite red juicy. 04 Nertera granadensis common . 05 Lyropodium Aug. 27 - Ris Coroics d'below Churcipata Pro. Non yungas 2000 m. Wet brushy word on sleep slopes. should 1.5' m, tall, 06 Symbolanthur Glowersa Geautiful rose, in dense brush marked with whitish. sapling 1 m. tall, steile, 07 Cinchona quina mananjada" leaves side of trail menters glossy above. ang. 77 - Lacramento Chico, Valley of Cupalani, Rio Corving.

drainage Nor yungar 1900m.

side of brushy worded rewint sprouts from old slung, 4m. 0.8 Cinchna tall flowers pale printe pagant. leaver deflexed. Trut paile paile immature (faile rample) "Guina paile" or

nn Jungar 68 1997 Bolivia ang. v7 - Ris Corosies, 5 lam. about Envires, Prov. Va yenger steep brushy side of valley slender strub ym, tall. 1750 -N. v3509 Ceneling calisaya var. (like 2 951) but hairy) in brushy raving (leaves budley attacked by insects) (bark sample) shrieb 3 m. tall, several quina calisaya lanuda 10 Cinchona calisaya var. brushy slope o emmin stem from base, leaver turning red. (bale sumple - lower bale had been removed and regionn? Ceng. 77 - 4 km. above Entire out in valley of Rio Corvies.

Maryunger 1700 m. around banana plantation fruiting 11 Cinchona calizaya, vas tolanted abundantly in a zone of elfin frest and the drainage of Ris Corone Ehresquea. His rapidly well above covico is wet, steep becomes trypical dense cloud frest. at least near walled and densely wroted. the road this is frainly well The rock seems to be sediment choked with Chingweg and any. The road from La Paz viner, probably the result enters the ralley about Christista, at about 3000 m.

70 1947 Bolivia of the road construction at about weem. appears a variety of Cinchona probessess. young plants are very common in the brush along the road, but mature one nare - only two seen ( It is probably C. ovata Wedd. or something close to it. It differ from the Cochabramba form (28484, 28488, etc.) in the erect, early cadreous stepules, glossy leaves, etc. at about 1900m. this is replaced by another variety of E. pubescens & quina paile" which has long leaves, acute at both and, tending to be pendent or deflexed, evanely probescent. No large plants of this were seen, but some small ones were flowering. Vear where Cupulani ralley enters the main Crois valley, the frest disappears, having been

cleared and burned, replaced

by coea and banana

nn Jungar 72 1947 Bolivia the grieners who served as quide. It was noticed that flowing plants were much easier to freel than fruiting ones, and this was confirmed by 16 9 9 aug. 23 - Coroico, Alen yungar 47°45'W. planted in and around edges of banana plantation on slope. shouldy tree v.5 m. tall. 28512 Cinchona calisaya flowers fragrant, common frink outside, pale shellwithin guing Calisaya blanca: same, francistrost for 13 Cinchona caleraya and with immune frois. (back sumple) 14 Cinchona calisaga uncommon, edge of ravey shrub 3 m, tall, several stem; leaves bronze purple beneath, flowers said to be white, but not seen; fruit immature. & "gring calisaya mada" (barly rample). shouldy tree. 3 m. tall, 13 Cinchona calisanja very teavily fruiting, to fall. Frank har been removed sometime back Guing calinage blanca (bark sample)

74 1947 Bolivia Mar yungar 28514 Cenchona calisaya shrubby tree 2,5 m. Tall, flowers finds without, pale shell prints within 17 Drymania Endata along traile at base of wall 18 Cinchana calisaya flowers white. shub vi'm talf; llaves green, frit immature. gruna calisaya blanca. ang. 28 - Valley of Copulani, below Chushipata, Ris Croics drainage Morgungas ivet cliffs and dense 19 Deeringia filled frest. ving climbing in trees To timeling publican var. tree 12 m tall, 25 cm. thick; in on sleep sid of noven leaves glossy, order ones tuning red. quing nangudy ( tak say) 5 21 Centropogon steep brushy cliff reaudent; flower magente, cotumn greenst yellow, anthers bluck 4 22 Fuchsia

wet cliff

Thebria

tot cliff, common pendent struly flower cumson. clingate shoul; plower ecalet.

76 \$ 1947 Bolivia no yungar Valley of Res Le Tongs, road to Corrilo, & lam. Calor Unduari 1675 9 Mn yungar 67°47 W vertical road cut in Tompier bushy regetation 2 5 5 2 4 Gaulthering small should; nacemen emmon red, flowers was pents. 25 Vaccinium prostrate; flower deep vy common was red. 26 Gaultheria very common 27 Persettya strubs from I don to 8 dm, call, flowers purplish pink, fruit blacks. dwarf shreet, fruits 1. common pale purple. (66) Sept. 4 pass at bead of quebrada de all dans qual froiles with patches of soil between them, this suttered smood on ground. Vegetation typical puna, with this grassy truf some trifted grasses. Also cliff with granile talus. flowers frusplish white with crevicer and ledger 29 Lupinus wh crevices, rare

78 1947 Bolivia 31 Distichia on gravelly pracher of, decomposing granite tufts and cushisus. durang-showly, flowers, 33 Ryensphyllum common on earth patcher 34 flat yellow circlisms 35 in me h crevices with creviers with early 34 commen everywhere 37 Omning Carp 36 Hara verally 37 Lugula racemosa Desv. det, Balsaev. 40 Cerastium occasional on cliff flowers white 47 Luzula 47 Luzula en cliff and talus 47 Luzula racemosa Desv. det. Balsaev. 1984 dense tigts

80 1947 Bolivia 2 45 Lilens gramte Talus dense bunche flowers ned rare melify, 46 Chersodoma antennaria (Wedd.) Cabrera det. J. Cuatricasas perostrate malled orasimal on cliff 47 Leverio adenophylloides Sch. Bip. det. & Cuatricises should up to 4 day. Cally flowers yellow. common on talus 48 Stiffea siense stiff franke common talus 49 Lycopodium 50 Bornarea flower coral red with rare on cliff

common on cliff,

52 asplenium

in crevice under veskanging

vels

5 53 dense bunch forming dense cushway common on clift Dag Tept 2-3 - quebrada de Jengs 2-4 km. above Jengs Steel wet worded canzen side. 54 Excremis flower purplish file; fruit immating

84 - \$1947 Bolivia 28565 Cenchina pubessens var. 8 canyon bottom tree 12 m. Tall; bave mus a los query; (bark sample) Left. 2 - zmgo 1300 m 235 4 Cinchana calisays tree 8 mm. Call, 12 cm. thick, flower pink, mostly stails (bake sample) 7 planted in banana pate, on steely slope (from plant 4 47 Drymania 1 weed in village, common diffuse; pedicel, viseres Left. 5 - La Paz, Bolivia Cultivated in parks and garden 4 48 Cantua buzifolia erect shrub, flowers "contesta yellow, limb pale than tube; stigma exerted from bud. 69 Cantua busifalia ened showly flowers with orange - med tube 'earl and crimen limb stigma exserted from bud. c 70 Cantua busifolia erest should 2.5 m. Call flowers crimson, tuly redder than limb, I muse slender than in nor. 28568-9) "cantuta". 7! Lavatera assurgentiflera Kelli showt 1.9 m. tall, trustithick; strontaneous in gardens. glorners nose with white center and maron striper.

1947 Bolinia La Paz 28572 Ligustrum small tree 4 m. Call, 2 73 Cassia tome tosa L. f. Lt forvell st printer planted and sportaneous burds solvite. small tree 3,5 m. tall; flowers said to be yellow, 74 Verme pods raid & be enter occasimally of they are sweet. 7 74 Vermica commonly planted thrub I m. tall; flower jurgelish at first, turning white. 75 Buddleja commonly planted (apparently mative to region) show moralf but reacher small trep size), flowers orange. kishvara 76 Lavatera assurgentiflers Kell. Sportanevus in garden shrub florvers now-finde with white cente, and maron striple. Rio La Paz, 1-2 hm. below La Pay, eliffs and steep slopes of partially convolidated gravel, seriously eroded. 77 / economa arequipensis (Sprague) Sandwi.
common det. A. Gentry 1974 shrub in tall, sparsely tranded flower dul vermillia. 73 Termy arequipensis (Sprague) Sandwi.

common det. A. Gentry 1974 should 1.5 m. tall sparsely branched; flowers dull wermillion 79 Prunus seroting var. her 6 m. Tall; flowers occasional white; fruit immalus, said to be very sweet and edible when rike.

88 Bolivia 1947 fa Pag 28580 Cassia tomentosa L. f. det. Powell
common fennh multiglandulosa
gacq 19 a 15
5 31 Cenothera roses showling on Call, flower yellow; fruit immature. prostrate, branched at occasional base; flowers nose - purple. 32 Thatricaig chammily To aismatic rays white occasional weed distryellow. "manzarilla used medicinally. 33 fenerio clivicolus Wedd. det. J. Cuatrecasas
common branched Now shoul; flowers bright yellow. ever to tangled. 35 cmmon at base of sloper flower yellow with a vecasional on dry talus green stripe outside each segment, wide on outer segment. 36 . weed at edge of cultivated field 87 Mutiain acuminata R. et.P. det J. Custrecases leaves green, flestry; flowers green. low should, up to 1 mm. tal rays vermillion, brach Black- prugle. 1 88 Muldenbeelig eon weak struly flower green ripe fruit black fleshy used for coloring fabrics

90 1947 Bolivia hants Creez left. 7 - trip by air from firmed of warped and La Pay to Oruso, Cochabamba e soled sedimentary beds densely wooded and Santa Cruz. To Ones is mainly ver on all except the broken off steep faces which altiplans - dry, traviand show their frink and almost completely under cultivation except where dans bedding through en there are alkaling or sain a thin grassy or trucky flate, or where evosion vegetation. The crusts has formed dendritie of the ridges are largely patterns of quellies. bush-covered rather they worded, too. trom here east to cochathis flattens out into bamba and fran beyond are range upon range of the plain on which dry, from, bar hills, hanta Cruz is sixuated. also largely under eulti. This has largely been vation or overgrazed. denuded though just Finally to the eastward. east of the hills is an the bills begin to darken expanse of palm frest. with a thin brushthat seems growth woods indicates the approach is common, though of the weller eastern most of the land in slopes. Then come cultivated. a broad band of completely green lover tills obviously / calyx prismatic, slightly plicat. Sept. 7 - Lanta Cruz, Deft. de Sta Cruz bushy should a m. talf; flower 28589 Patura white, ofren only at night 'diego de la make' cultivated in bails

Lanta Cruz 92 Bolivia 1947 flower purplish 185,90 Diastates weed with potted plants 91 aprium weed with gottled plant, fruite black. 92 Cestrum 93 graphalium weed with potted plants Cordyline terminales The cultivated plants a large yellow bamboo. Mangiferg indieg of fanty eng are the common tropical ones. Persea americana Particularly noted wer: tions pumila Washingtonia filifera Cochlospermunsy.? Phrenix sp. Ceiling of ! (buttle shafed) Patura sp. (28589) Zelring penderla Melisocia bijuga acroming of.? Citrus (various spp.) Catharanthus roseur Lugenia cauliflas Plumeria rula Chelisions black fruit the Cecropia Mp. (fruit said to be deliver, size of a large cherry) Munaya pariculata and tree free from ante) (called Jasminum officinale) Musa safrientum Plumbago auriculata Codiaeum variegalum Cestrum of. (28592) asparagus plurossen asparague sprengeri Enterolotium cyclocarpium Cupressus sempervinens Monstera 2/2-7. Crimin rubrum Cycar revoluta (ine garden) Carledovica palmata

Lanta Cruz - Florida 97 96 1947 Bolivia 1 (48) Sept. 8. Berneys, valley of Rio Pirai (Rio Bermejo) A weedy brushy bluff of seliments over having 28594 Jeema stans tree 6 m. Call, placere occasional in Jenu-now tright yellow will 95 fiftig ving ale vot elliptica (Brig Mold.

96 al Suya calyptrata H. B.K. det. Frysell from red lines in throat. should 1-2.5' m. Call. suffrutereent have up to 0.7 m. tall. common weed 97 Heliotropium transalpenem Vell. shrubz 0,5-1,5 m. tall, 98 Lantana aristata var. cabogrea molderte sub molderte flowers white. weak should im. tall. flower findrish white. occasional on dobuff 99 alternanthera flavogrisea (Urb.) Urb. prostrate, rather 28600 Randia ontof of bluff shower greenish-white. in brish on top of bluff about the flat bottom as I rom here the brills franted to bananas. seen uniformly worded to the tops with the same type of decidures forest, just leaping out. The lover slopes just

Lanta Cruz - Florida 99 1947 Bolivia Loryard Det. H. Oltis prostrate, rooting at node, extensive, formingdense mat; flower white; fruit immature, 5. cf. radicans L.f. dut.M. Nee, 1982 not opherical, wide, one way than other. stilled in medicine 5 remove merming from new for infants - pounded and used as injuria. (51) 8 Lept 9 - Thes Cruces, Rio Pirai (Rio Bermejo) dry seems growll with open grassy areas on slopes and evert "melendre" has been severely burned erect strub 1.5-2 m. tall; Or Cicothamnus azafran Cabrera fina; intermedia det. P. Custucasas head, brilliant orange. save in second growth brush stender armatic shrul 03 Lippia duratorum Heozog 1.5 m. till; flower white common in low brish flowers magenta. 04 Onseries sagittata (Rushy) Rushy det. prestreeness in shad at good of cliff flower bright yellow. 09 Calceolang wet seeps and cracks in flowers tright pupile 06 Infratorium involved tipped with brushy mage deep frusple.

100 1947 Bolivia Lanta Cruz - Florida 101 28607 Pigueria common brushy ridge slender strutt up & Im. tall flower cream white, very fragrant. 08 Jouania vine climbing intrees, orcasional in seemd-grout, tough; fruit immetice. 09 Cinchena probescens var. tree 4 m, tall, partly dead, several amall common very locally on brushy ridge; huntes up 9 7 cm. thirty; plants have apparently leaver firm, redding survived severe truning green, stipuler everet 9 spreading; fruits dull ned, immature; (back sample). 10 Cinchona pubercens var. man collection of several sterile clumps of sprouts, the tallest 1.5 m. ( heef all.) (10 show lack of variation except in leaf size. or II Justicia rusbyana Lindau det. D. Wass hausen 1969 erect herb to 1 m. call; on brushy ridge common flower white, with r folds in lower lifs that are striped with purple, tree with thech carry and brushy ridge, but mostly stirile. ridged bark; fearer glørsy: flowers waxy white print dry. showly mitally meanly rare on dry erroled slope leaflers; flowers white.

102 1947 Bolivia fort fanta Cruz Florida flowers white. 28614 occasional weed Ruellia longipedunculata Lindan substrub up to 1 m. det. D. Wasshussen 1969 nare in ended open slope tall flowers dull red, tribe lighter. 5 16 common on brushy slope showly 1.5 m. tall, flowers purple, calyx grazish frugle. "higilla Sept. 19' Bennejs around dwelling flowers white-17 Ameria 18 amaranthus hybridus L. erect. emmin weed 19 abrillan Frysell suffrutescent herb up to common weed 0.7 m. tall; flowers white, Gaya Bruziana Kvapov. delicate with purple Let. L. J. Down Jan. 1997 center, purple filaments, yellow anthers, red styles. 20 Portulaca occasional roced fleshy, flowers dull the pinh with deeper cente, about 1.5 Of cm. across, starmens about 10 style branches yellow, 5-6. 21 Richardia brasiliensia Homes Colo prostrate; flowers white corolla lobes 4.5.

Lanta Eruz - Florida 1115 1114 19117 Bolivia fleshy; flowers yellow, rem. across; starnens many (over 25) flowityle brancher yellow, 18672 Portulaca 23 Delilia biflora of flowers yellow. nane weed (oneseen) 24 Boerhavia · prostrate is according occasional weed flower frink. fleshy, flowers pale 25 Portulaca straw yellow the stamens nare weed 10-12, framents yellow, anther, mange red, style Grandes 6-8, yeller. 26 Barreria flowers white. common weed 27 Portulaca flestry, leaves more or less breatly common roll pressed into one plane; flowers crimson-pinh, 7-8 mm. across, stamen about 15, red with yellow anthers, style hancher 6-8, deep crimson, trouted into two inegular masses. 28 Mility Jungia divaricata Rusby det. J. Custre Casas shrub up to 7 m. tall; flowers white. common along roadsides sprawling elongate 29 Jacobinia brevispica Leonard det. D. Wasshausen 1969 her floren yellow occasional in bush fading distally to straw colo 30 Clematis mine; flowers greamist in brush along would white.

106 1947 Brlivia Santa Cruz - Florida show v m, tall. ff. leaves turning red in age; flr. yellowish white. 4 common in brush 5 n graphalium common weed 5 33 Senecis pectioides Rusby det J. Custrecasas was cut in earth branched suffrutescent herb up to 0.8 m. tall, flower yellow. 3 34 Tricach ne insulari, common weed 5 35 common weed on earth banks loose bunches up & prostrate, gray-green. flowers yellow 37 Physalis flowers greenish yellow, with dell green center. orcasional weed 38 ageratum emyzvider orrasimal weed aromatic herb, flowers pale lavender. 39 Untieg branched herb, pale occasional aveed green. according to subsprefects of The small stature of Samayfrala there is gring nos. 28609-10 is doubtless in various localities around due to burning. It is Samaypala. The trees are said only a grow on not necessarily small, ridges and welly places, Just reach several dm. dian. never on flat places. In former times it was Postrevalle, Miranda, Lan juan wer mentioned as localities. worked, at least to some extent

Santa Eruz - Florida 109 108 1947 Bolivia 28640 Milania herbaceous vine; flowers occasional in sparse brush cream white. 8 41 Lolanum spreading tree 4 m. lal occasional 3 dm. thick; cymes every, flowers purple, modding. 42 Panicum race, growing up through a here sping when flowers pinhing white, fruit ned. 43 Kiving humilis a secasimal weed (1) Sept. 11 - Rio Bermajo (RisPirai) about 1 1 - 2 lam. above lengosture. Pr. Florida, Deft. Ata truy Cliffer of soft shale above niver, weedy radside and cuty. 44 Plumbage degreesed plant, sprawling, weady wadside flowers white. wine flower grayish the way more the bolow on brushy diff 46 Schinus

Common in words below wad stander tree 5 m. Call, absolutely bare except for cluster of green fruits. common in brushy woods extensive tough vine, flowers bright yellow, one gelaf marked with red. 43 alternanthera heads whitish. orcasimal on north 19 Kuellia gracciran Bucker (vd off) plants up to 1 m. tall, corolla scarlet, somewhat plicate, bentat funda common along road

110 1947 Bolivia Lanta Cruz - Florida flower deep yellow. 18690 Turnera rane on weben 1. Wissadula boliviana R.E. Fries det. Trypell bushy, up to 0.7 m. tall; flowers arange. rare on who 3 52 Onoseris sagittata (Rusby) Rusby det. J. Custra Casas flower bright purple. Sept. 12 - Santa Cruz 3 53 Pogonopus tubulosus (DC.) tehum. cultivated in park Spreading tree 5 m. tal; flower purple distally, green below expanded calyx-lobe bright rose-pinh. 54 Boneria flower white weed with protted plants 55 Nicotiany flowers green, slightly bronzed. weed with potter plants Left. 16 - Canyon of Rio Choqueyafu (R Chuquiagillo) alowe ha Vary evoled steels dry grassy 16 33 5 slopes of crase gravel, 68,8, M. derrinated by Stiffy Barcharis, 3750 m and in places Engines. 56 Solanum show In lall; leaves glossy, of a dull green color; evening, mostly in moister flow flowers violet, fruit black when ripe,

112 1947 Bolivia La Paz - La Paz 28697 Bacchair, popillosa Rusby det J. Custreesen whitish. emmin small showl; blower , 53 Lupinus einnen blue with center of banney bright yellow turning & purple tistally. ( mostly not get in flows) 59 Bacchair papillosa Rusby det J. Cuatreca sas drough should. 0.5 m. wall common 40 Bacchain papillosa Rusby det & Cuatreer sas divary shoul, 0.5 m, tal prostrate, pruplish; fruit fleshy, white. prostrate. 61 galiun rare on beroded gravel bank 62 Muchbenberling common locally on bare gravel small showly uf to Im. talf, aromatic; flowers white.
"muña" tured for stomach medicing. fruit dry, easily dropped. 14 letraglochin orasimul flowers whiting 5 or CG Parcharis incarem Wedd. det g. Cuatrecasas very common

114 1947 Bolivia La Pay -(51) Left. 17 - Rio Unduari, about 16175. 10 km. below Underavi 67°50 W. steep wall of aring above viver dense Chrisquea filled woods. 2000 m.(e) 28667 Cinchona pubescens var. tree 10 m, talf, 15 cm. thick rein reddish below. (bark sample) occasional 68 Cinchona pubescens var. sterile sprout 2 m. tal; occasional leaves dull above, veins reddish. Left. 17 Riv Unduavi 10 hm below Chacs 1760 m. (a). 16 21 5 69 Cinchona caliacya bushy tree 5 m, tall, will several trunks; ald leave around edges of branana 6751 W and coffee plantations v (5) Left. 17 - Just west of Chuluman 16239 67 34 W steep brushy slopes, frull 70 Einelma calisaya vigorous clump of sproute edge of banana plantation 5 in. tall; fruit immalure. 71 Circhona certinaya small tree 3 m. tall; in brush leaves dul, turning red in age. 72 Condaminea conjuntosa shrub 2 m. tall common in brush

La Pez - Lun yungar 117 116 1997 Bolivia small tree 4 m. tall; flower V8673 whitish. occasional in brush claimfof sterile sprouts 5 74 Cinchona calisaya vm.tall; leaves dull about. rare in brush Lept. 17 - bills & from. w. of Tajma, drainage of Ris Chulumani 16 15-17 9 67° 32'-74' W. steel atthe densely wooded slopes, not especially wet 75 dephorampylus ving-lity shrule, areas.

76 Cinchong pubercens on.

common on steel slope tree 10 m. tall, 12 cm. thick, leaves dull above, veins slightly reddish, flower fragrant, pale pints (bails sample) 77 Cinchona pubescens va. tree 8 m. tall, 9 cm. Thick; leaves dull above, paler common in steely slope beneath; flower fragrant pale frink: ( bark sample). r 78 Vaccinium
race in thick woods vine-like showl, langles in undergrowth, covilla coral pinh mouth while, whole broadly ellipsoidal, waxy-fleshy. buil blue. 79 Coccoeypselum nare in Thick words

118 1947 Bolivia La Paz - Lun gungas 119 18680 Centropogen I nare along trail in words arching weak shrul 1.5 m. ling; flowers brillian orange, paler distally; column yellow, red at summi anther purplish-gray. nase in words along trail slender ered showl '2 m. tall; flowers whitish, fruit red when refer. 10 82 Einstrona Common locally in woods on steep slope, tree 10 m, tall, 10 cm. thick; old to leaves glossy, red when old; flowers said to be whitish and 1. gring amailla"

back not bravested.

1. 83 Cinching

same

in words on steep slope: a appear in December and January, (bark sample). same (barls rample) sterily safeling 4 m, tall (possibly slivering juvenile characters) 10 86 Palicourea

none in words

common in words slender showle of m. tall; thyrse green, fruit immaters small tree 8 m. tall; llaverdull above, buts deep griner ( back sample) 87 Galium common weally in woods on flat place. ving like; fruit fleshy red-orange. of Cinchena pubercen on. Try 8 mitall: leaves rule-glory above, veins the green, turning sed in age. (bark nample). everel on flat place

La Pay - Lus yring az 121. 120 1947 Rolinia flower frag and,

pale frink (barn samps) 28639 Cenchura Trubescens var weal on level place Sept. 17 - Tajma, Sur yungar 150100.(2) 16 18 9. 67°32' W. coffice and crea plantation, 90 Engthrougher coca shrube 0,5 m, tall; fruit immatere, granted win www on "cora" leaves chewed by some many tenues on Indians. open slope tree 5 m. tall, granted 10 91 Cinchona calinaga and ofreading, lerver teer persisting at estage of "griing calisaga"
back harvested extensively erffee plantation in and at base of adobe wall 1 (5) Left. 17 - road bet. Chrilumani 1500m. fes and Tajing brushy wadself clumps sprouts 1.5 m. 92 Cinchina calisaya steel brushy slope talf, sterily. deft. 17 - Chuluman, Lur yung 1 1111 weds on bare ground in Estru actions of experiment station charges probably from seeds in manue. 93 Drymania fls. lavender. 94 Diestates

La Pay 122 1947 La Pay done I v ( Lept. 27 - La Pay

cultivated in garden (brought in by end person)

v8695 Cantua buxifolia

ch tuly yellow distal of tube yellow, distal 96 Cantra brusifolia half and limb crimson. cirolla with tube yellow mere or less flushed with frink without limb old-we frink. Me fot. 19 - altiplano south verythin close grass and Of La Pay, from El alto to # 28702 covers ground, result grazing to a certain extent. Entire altiplano in treeless, Bacchain and Tetraglochin are dominant on ended mostly intensively cultivated stope. Tota was formerly organish budly over grazed abundant on most of these and ended, stop much rolling land, occasional and, but now has been completely eliminated steeper ridger, the sloper very badly evoded, the near ha l'az being harvested fin fuel. an sleeper ones down to bed-well. area at Collana still The gentler slopes are tras Lepidophyllum (tolg) more intensively cultivated as an almost price sland, Than the a flat deposition but relatively small areas below, probably became plants (up & o. 4 m. on dry of into drawings ws. imperime. ligh ground, up to Im. in ability of wil below. Mo low randy bottom land, humis in evidence, much the larger ones braving been Inohen well in soil. harvested for fruel. Told entain

124 1947 La Pay Left of Colland

Parabhephia & - Colland (Wedd) Cabrera det & lustricasas transhed should us, to 0.7 m. tall, aromatic, resinous gently sloping allung soll, dominant and almos flower yellow tola haveds only species. and baled and sent is La Paz for fuel. v (a) Sept. vo Calamarea 4200 m 93 Banadesia Dasyphyllum ferox (Wedd.) Cabrera nane much branched to bush 1.5 m, tall, leaver mostly fallen; part flowering dwarf strul, intricately · 99 occasional banked, 0.4 m, call; flowers nellow with purple - black markings Custrecasas denset devarf showle, 28700 Gaccharis incarum Wedd. det. 8.

dominant plant resinous, Oftween flowers deep grapher 01 Senecio spinosus DC, det J. Cuatrocasas, nare (one reen) with yellow anthers. very common in placer forming lense gray matiflever white, linged with pale lavender forming continuous ground cover. rounded densely transled 03 Chersodoma iodopappa (Sch. Bip.) Cabrera nare det. J. Custrecasas Just. dried when collected. Laid & be armatic when frosh occasional

Puno and less over grazed have seen Heals of Clamas, Cattle & sheep are abundant ber.

It is said that during the last few years when the level of Lake Titizana, bras lowered, the totoras, (deinfrus aff. lacustris) have largely died off, and that the "balaa" or bout made of them trave largely disappeared. the boats only last 2-3 years and must be replaced. now the Indians are learning to use other boats and the balsas may not some back, even though the keigens renfrearing with the rise of the water.

132 1947 Pern Oct. 2 - Puno- Cuzco by rail around the lake at any reas I uno were many gullo and some commants gent expanse of must flats have been expressed lythe lowering of the level of the lake (7.3 m. since 1930 an. Company Crespo, but Mas visen 1.5 m. in last z years). The valley above and below Juliana is grite gassy tips, etc. Near Preara the flat fall valley floor is of small hummocks of white day. There is a entering local fortlery industry here producing amall frigues, ash trays, mys, bowls, pitcher, etc. of a rathe unattraction dark greenist troun glaze. Rio Preasa has broad flat rich opposslands The grass in mouleundan

Print ayerini 135 1947 Pen. Cazes - Cuzes, unbamba Det. 2 aranconca, Diolemanio 14°30' 5 grenish yellow. end alchemille earth bank of small stream in offen prina grassland Lenerio is in much friller 1331 5 oct. 3. Cures, mins of bloom than a months ago every-71°59' W Auchoahuaman thing is much greener. 12 Berberis
occasional should I m. tall, inticately translud; flowers yellow Oct. 3 Cures cultivated in pation shoul v. 5 m. tall, flowers while should 3 m. tall; flowers 14 Lavatera noze-pink slopes below Oct. 4 - Machipischin, canyon of Ris Unbamba steep slope not dry but cleared and burned over, in some places brushy. 2040-2840 m. 1200 m should 1.5 m. tall, stender; 15 Monnina plorvers indigo- jumple with - greenish yellow breek. troom. slender small tref 4 m. Tall 16 Dodonaen viscosa 17 Liabum Eng lactiferous, flowers deep yellow, nd in open places

Ouges willamba 136 1947 Penn mio m. slender shrub i m. tall. 77713 Lantang flower lavender purple. 2400 m hart 1 m. tall; flowers yeller. & 19 denecio vine the prite no galium low, much branched berli; reasural 71 Phytolaesa flowers white, Touchel with while 2500 m. devay, should, 3 dm, tall, 22 Barcharis - franched at base. rare heads yellowsly 23 graphalium most common sparsely branchedshuch 24 Baccharis 2 m. talf; flowers cream while not common 27 Dackensing vernillin. 26 Begonia 1750 m find, very young common in noch crevises show m. tall plowers 23 common in brush tright purple. 29 Verbena herb, branched at base, flower vislet. common weed - a hour m. tall; flowers 30 Lolanum occasimal maure

Creyes unbarner 138 Penn 1947 oct 4 machipiethy paths and terraces about nin flowers white. 78731 Fragaria abundant on 32 Pityrgramma common on cut earth banks flowers yellow 33 Heirasium web walls herb 1.5 m. tall; y 34 Capsium flowers deep purple, cultivated on terrace of ruin, fruit greenish - black, turning sed when rips. 35 galinsoga wins of wins may whitish, dish dull greenist yellow Oct. 6 - aguar Calientes, Pro. Canchis 71° 5' w. near head of the Vilcanota meadow filled with warm springs and streamlets flowing from them dulldak blue-green. 36 Hormidium on bottom spring noticeably warmer than body temp. but not unconfortably warm, not sulfurous but with som im

1947 Pen at Pampa de anien at west base of Valeun Chachani, balld told som to be a sprinciple item of ennere. I rom here on fre a long distance is a waste land of lava flows and ash beds with a true desert wegetation - small leafed intricately frameled should midely ofraced. Castilleen, earmon. My trees, no live trela seen. Valegeourses in deeps grige. a few flat placy with water planted walfalfa. Her to fulir of Euraly tus and a few Schimes. (9) Oct. 7 - 5 hm. s. m. Vincocaya, In. Caillon Dept. augnifing caexpitors, prickly. 12737 Stipa pungens dominant on sandy flats Oct 7 - Pricacanelra, Dept aregrenjea resinous aromatic struct a. 5 m. tall; heads yellow 38 Repidofshyllum dange area "Tola" used for bull

147 arequipa 146 18147 Pen until about 1820 lam. s. s. Oct. 9 - arequipe to Chala by of Carnana, the Comas had apparently been Leaving arequifry The moistened by forg, and was climbs the worky supported a Urin but dry bills to the south of colorful growth of The valley. There brave a herbaceour plants. Most good growth of at least of these trave thich noot, 3 species of Ceners, one or tuber. Their flower, the marrier each columnar in many cases, are quite one seen further north variable in color, i.e. ove a slende freely nolana, Kolanum, tiin frankling very spring Lotus (?), etc. Molang is and and one with a dominant so that it trunk and a dense actually gives a this irregular vertices of ever to the lands sign. horizontal brancher ober The soil is a frink, light Sparse brush ocsus here between the casti The Camana vallay Meaner the court the is extensive, and has wad dessent and an important inigation recorded the valley system. below deguing. It is north of here area the usual geen imigated few patches of linas valley with dry bare wally regitation, but pronly developed. Moth of here the him and flat place are about 100 hm. 2.04 completely without Chala are welry wills vegetation except for with the columnar Cereus and a few irrigated valleys

154 1947 Pen Oct. 10 - First headland 1 (85) north of Chala, lem. 440 rolly slope, dominated by dutary - shrubby Heliotopium and foliation notang W 0,8 m. 1777 argenne mexicany rellow. common along wasside 6 should 72 Helistro Jun will dominant on rocky stope der, ev centy A will, 79 Helistofrum 74 Helistrypium semid. 75 Aphaeralecy Molava dominant, in places 76 Crotoning slopes prusple.
76 Crotoninal Janaca.
Oct. 10 Lys arenales; km. 600 flat Lain yolam, n. w. of Chala of rand bar rand flat and small duren just back of beach stems 1 cm. thick; leaves 77 ferrin very flesly but compressed large warres bolding gray; ferwer prink. small hummodi-like sand dunes (march larger is every way than 5. port.) long, many mine - like. 78 Macrocystis thrown upon beach in large quantities,

11797-55877 3378-47 28848-5E-13 please see whether 28708 - 10 ( Boll win) and 28711-96 ( Peru) CER. Also see if 28000-165 and 28250 - 7 mining too uglo

156 1947 Pen V 1 Det. 10 - 4 Rm. s. e. of Valle de Vaca, 2.0. of Maria desert with in vegetation but lichens, except along madrides where a number of plant are common redded - glamon, 28779 Chenopodium 30 funesta densely branched. glaveour, fleshy, densely tranched, eved. · race along rondride redding bushy earl. 31 amaranthus abundant along roadside Oct. 10 - Massy inigaled valley, roadside, and stony wash dulf green erect 32 Bulnesia retamo (Gill.) Grisch. common on stony ground shrill 15 m. tul Her almost leafler. in washer and illuvial flowers yellow, calato fans ( In many mile, on alluvial frans practically the only plant! showle 3 m, tal. flower 33 Muddleia formon along Jense-row lemmyellow. show v. 8 m tall, 84 Clurkea bead purplish. common along frace-row shoul im. tal; 85 mixis flower yellow. and on watery ground

Lima 166 Peru 1947 Oct. 12 - Rima 28792 Cardamin bonaviense, flowers white, valves of pools elastically coiling in muddy ditch on delissence. took bushy tree is m. tall. 93 Lamburer flower white, guit black. planted trees m. tall; flowers 94 Viburnum planted white. tree 8 m. tall 95 Heliscarpus shrub an. tall; flower planted whitish. 96 Cantra pyrifolia planted

168 1947 Peru Oct. 20 - Tings Maria Rio Huallaga I lat valley floor with tall frest, now largely cleared, but evidently formerly with a canopy 30-40m from ground. Now largely ofren, even where remain tratcher of brest, so there is a dense undergrowth of Deliconia, acanthou, The sides of the valley are bluffs and domer of limestone, magnificently worded. However, even with all this limestone the soils are said to be acid.

170 1947 Pery at Divisoria, the gap giving from Tingo Maria in the mountains the Constillers agus as som is a belt of Cinchana on the road beging to rise C. pubercens (ovata) and over low frotalls along C. ? (like trumasfolia) sides of valley, hadenbergia magnifolis and Cinchona micranthy begin to appear, but only as seedlings and sprouts, as the parts new the road have been cleared. at km, 140 there are quelrada walls with seemd growth woods with Radenbergia magnifolia and another Ladenbergio with how bain. all trees seen were young and sterile. The road gradually climbe and the Ladenbergia magnifolis persist but ( minantly dryps out. at. probeniers var. similar to the q, amaille of Tabarnas appears racely, seedlings only. Convilouens alor. no large trees seen. Les blantations pequent bere. Very wet, the words, where maining are thick,

172 1947 Pen home I Oct. 21 - Km. 100 road from Tings marin to Purallya, 95000.(1) 90415 75°63'W drainings of Ris Huallaga seems growth fruit on steep side of ravine. slender supling 5 m. 78797 Cinchona (Ladenbergia) common locally Oct. 21 Km. 189, road from Fings 1500 m. (c). Many of breaklys, just wo of La Divisoria, Condiller weedy roadside this gets shoul 2 m. tall 98 acalypha common herby up to 1 m. tall 99 amaranthus spinosus spires very poorly developed. common weed sprawling vine like 18800 Deringia horb, to several m. long, emmin frances red, seed embeddes in white pulp. transled here, up I Im. 01 Physalis peruviana occasional tall flower spale dull yellow with 5 purple-black sports incenter. fruit adible but searcely enter maturing here "capouli

176 1947 Peru 2(20) Oct. 21 - Funds Linchons, Cridillera azul, Rio Chino, drainage of Rio 1500 mu(e) Ucazali wet frest, largely cleared. tree 25 m. Tall, 4dm. thick; fruit immature. 13811 Cinchana (Badenbergia) magnifolia
17 com occasional in
steep wall of rive, garge show 2 m. tall occasional, vadside thicket young desile plant 13 Cinchana 1.5 m. in I hade new tie and planted in a lambation should my. tall; in plantation,

4 15 Polyming

weed in roadside Thicket flower white sprawling bell, heads by orange yellow, achene, sange, green. 16 Drymaria condata ascending difform elongate sprawling showly 17 Centropogen common in roadside thickets leaves diminishing distally, terminal part of transh bearing raceme variously bare or leafy, flower scarlet, crange distally, column pale zellow, anther light gray.

178 1947 Peru erect 13813 fyropodium styrulas deeply conneto cut bank above road steril sædlings O.J.m. 19 Cinchona glandulifera tall, eved, , feels brought 20 in seed bed in full by H. augusto from upper n sur Ris monson. Oct. 22 Divisoria, Condillera (000 m.(0) and main divide of Endillery, wet frest, mostly clearl. old half dead stul 23 Cinchera pubescens Vall with a few living in clearing tranches leaves purple beneath; flowers ( out of season very fragrant, deep print without pale frinkrish within. manicoll. of an upper 24 Cinchora pubercens side-branch tip each in brushy cleared land, very common from vanous plants, to show variation possibly due to hybridization tree 8 m. tall, 20 cm. 25 Cinchora probencenz thick; leaves green in they tangled very beneath, fruit abundant wet woods, beside (borde sample) standing water

1947 Peru 9 in cleaning small tree, 4m. tall; leaver green beneath; heavily fruiting; apparently injected with Elsing conclusion, 27 Palicrurea in undergrowth in Vin 28 foldmen sterle struct v m, tall, thyrogen, flower white. weak strub, m. lalf somewhat sprawling; in undergrowth in this word flowers white 29 Cinchona probessens in plantation cleaning, left from frest. tree 5 milall; leaver purplish beneath, especially or veins, not fruiting abundantly. 30 Cinchona probencens safeling 3 m. tall, leaves prinsplish beneath, wild plant planted in plantation especially on veins. small ties, 2,5 m, all, 31 Cincheng calisaya flowers frink, fragrant; planted in plantation stedling from ex-fapanere planting at Junyas (Alga). 32 Cinchona probescens planted in plantation from sapling 3 m. tal; leaves somewhat purplish beneath, red verns. (showing some suggestion of hybridization well # 28809 - Wrich small leave,). 37 - B 33 Cinchona leaver glorry above, Then beneath, only olded Reaves will red thistile + petit, I wild plant persisting in

182 1947 Peru 9200 I Octiva - Pumahnasi V (73) Rio Tulumaga, affluent steep welry ent measure. green very thich. Cosmibriena oreasional, but only young frants seen I true both here and at Divising Det, ve same, further flat valley bottom shoul im, tall; 35 Hamelia patens common along roadsidy ditcher. flowers deep range - ret. slender shrules + + + + + 10. 34 Englinoxylon ereq 1-1.5 m. tall, fill leave (also on slopes) frale green; flowers white; fruits red plants planted in bytes about 2-3 dm. when rife. Leaver have been stripped square and deep, there frequently. gradually transformed by cultivation into Litcher as the lister are and the second second second frankt connected

184 1947 fem Oct. 13 - same Km. 14 steep wooded stope 9 some tree 10 m. tall, 12 cm. thick, 18837 Cinchena (Ladenbergia) leaves dull, not turning orrasional total bollow wig inhabited by ants. red. (bark sample) · stimb vin Calf (other 38 Vismia seen 5 m.); calyx from, common corolla pale green. Oct. 23 Hacienda La Vega, drainage of his Tulumayn, (000 m.(e) moist freet, partly cleared, clearings planted to lea and princapples, but. badly overgrown with Herdiem agnilinum smull tree, 4 m. talo, 39 Cindrona micrantha leaves dull above, veins small tree keft in turning red; plowers eleaning white, fragrant. al orbegame, prostrate, 40 Pteridium agnilinum (L.) Kulon subterianean fronds extremely abundant, 1-2 m. tall, densely dominant weed over tungled. tops and sides of cleared sills often truned. small tree & m. tall 41 Psychoteia capitata R. + S. det. Kirkbride, 1977 10 cm. Thich; leave, dull, left in cleaning som whomold; flowers white, tulthout verons,

186 1947 Pen 18842 Eleagia comment tree in front slender tree 7 m. tall, other many times as large. common in frest steril sprouts to m. 44 Psychoteia macrophylla R. 4P. det Kirkbu, 1977 common in frest tree 15 m. tall, 18 cm thick, 45 Cinchong (Fadenbergia) leaves dull to sub glory. common in frest ( back sample) 41 Aphelandra det. D. Wasshausen nare in underbrush at strub 1.5 m, call, corolla curred, yellow. edge of frest flowers whitish, puit green. 1 in firest the frests on the quebrada This region anold flood plain in the valleys of Ris Tulumays and Ris agul, stretching between stoper are largely Cleaging and tadenbergies, but have a liberal sprinkling of Herea ( with yellow later) the tros, is disserted and some other treez, toward the live rivers industing a small fralm. by sever of quebradas. the flat is cleared. Cenchona It is said & be, and micrantly is found apparently is much on the flat and down drie Than either over its edges in the the Valley of the Huallaga or head of the quebradas, but not much further down. the Cordillera Azul.

188 Huanne 1907 Pen Oct. 24 - Carpish Pass, the just w. of gap. Low morry cloud fret with brush on ridger. sparsely bandred 23843 Centropogon struly, m. tal; flower occasional in brush red with yellow love and column, blackish anthers. prostrate, forming mat, 49 Nestera tetrasperma H BK. floor fruit darlined, abundant locally 50 Muidium abundant tungled climbing canes, 51 Chrusquea influencences dank redcommon purple. communally flowering over a smallase. shoul im. tall; 52 Gaultheria flowers coral prints. occesional in brush shrub 2 m. all; flower 53 Lymbolanthus somewhat flattened occasional in brush laterally, rose - crimson with white and purple times in throat, tube vermillion without. erect shrub 2,5 mi Call. 54 Macrocarpala occasional in brush

frances 1947 Pen stifferest should Im. tall; 28895 Palicourea rane in brush finglorenceny green, puit slendy sprancely branched should 56 Mysene 2 m. tall; fruit immalure. common in brush prostrate, storile. 57 Mertera granadensig rare on ground in frest showb 3 m, tall; fruit 53 Cenchana (obrata 2) deep red, ribbed when fresh. common in brush and woods. show 2.5 m. talf. fruit 99 Cinchona deep red, ribbed when fed slender tree 5 m, tall, 60 Cinclama buds rose-vermillion, fruits deep red, ribbes when fresh. (back sample) v 41 Cinchana shrul 1 m. tall; fruits Leaver purplish beneath, fruits deep red, ribbed when fresh. 62 Cinchana tree of m. tall, floreres lone ald one only seen) was vermillion without, lober frink within, apparently odorless, fruits deep ed, ribbed when fresh. (back sample)

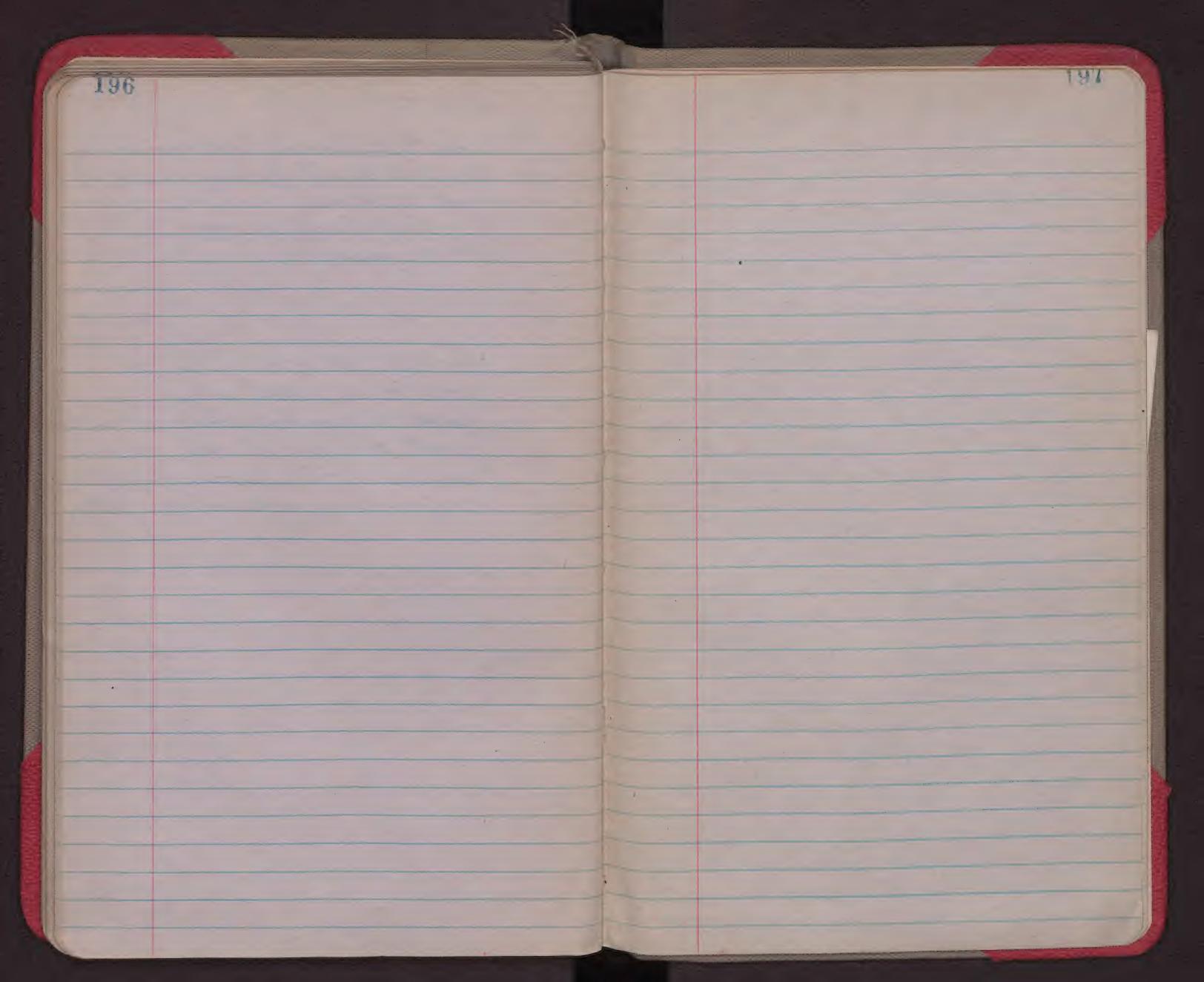
1947 Pen Heramico v (2) Oct. 24 - upper Rio Chinches 9'40'5 76'6'W above Hacienda Pati below Earpish Pass stell carryon wall with dense wet firest. tree 10 m. tall 19 cm. thick, 17863 Cinchara (mitida) leaver glorry, bight common locally rather light green, turning acarlet when old. (back sample) prostrate to ascending, 69 Drymans flowers white. common locally along road 165 A Centrogragon emmon locally sprawling, vine-like shrub, inflorescence pendent, flowers yeller with yellow column, straw extred anther, bringe green hypanthium & caly. Oct. 24 Side of valley of Coordinate? Ris Chinchas, above Chinchas Wich serond growth woods on stelly precipitous slope tree 6 m. tall, 10 cm. thick, 66 Cinchona (purpuea:) leaves dul adove, pruple common (with #28869) beneath. ( back sample)

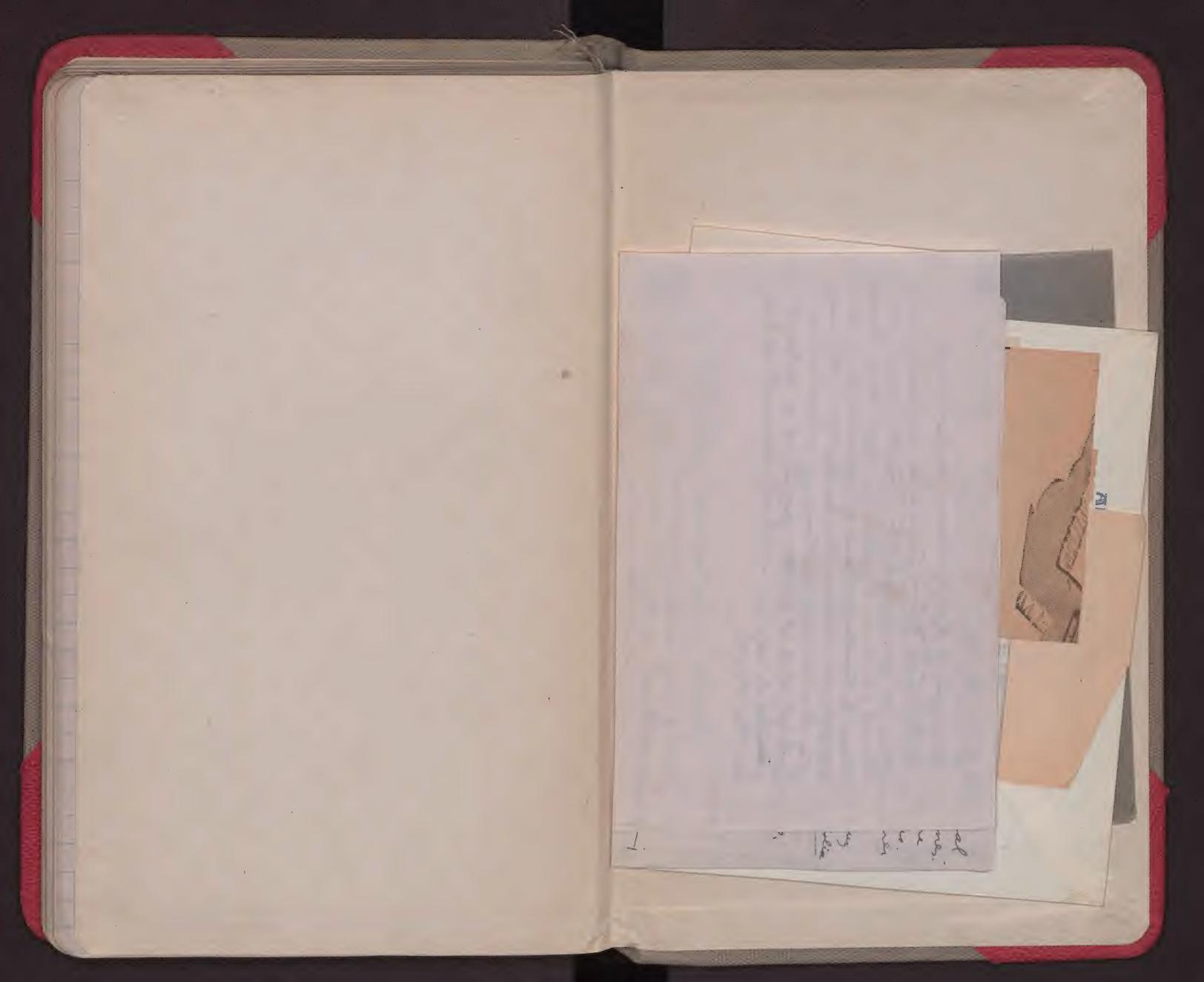
1947 Peru Husmund tree 8 m. tall, 10 cm. thick, 28867 Cinchana (water) leaves dull green above common (with # 28864) turning ved in age. ( Varls sample) 1 Oct, 24 Divisoria, Cardillera

ayar

in woods

I (Grought in by Rivers) strong sprout, tree reading great size; flowers yellowish white; fruit discoved, red when repe, with powerful turpenting oder when broken





Rafael Peña lawyer of Landa Cruz, Bolivia who published Thera Crucera (190) Luce) and spors an earlie edition. Locally said is bar based it on an early ms. left by a trenchman who died have brightented by a curious fact that leng was addicted to the use of a drink consisting of alsohol in which had been southed a plant bientog de ceva (!) which does not appea in the book

Borela bolanical student off fanta Cruz who apparently never with anything but who studies the glore semiand one of whose sens now teacher fothers is 9.6. Peña R. (apael) Flora Cruceña 1-287, Lune, Bolivia 1901 an extremely badly prepared flore of the Lanta Cur, area, Bolivia. It is reputed to have been a mr. left by a frenchman who died here ling ago. apparently a shorter edition was published previously, and has recently a new, much werse one has been issued. (over)

The plants are ananged alphabetically either by local or supposedly botanical names. There is searcely a name more recent than the time of Linnaers. Principal value is local names and uses. of cascarilla, said to be, in fauta cruz diversas especias, como quina lanafolia "Pooli" roud to be quarant name.

! form Raysh

### ALICE IN BLUNDERLAND

Alice in Wonderland never saw anything more fantastic and grotesque, yet legal, than the action of the city-county liquor commission last week.

The liquor commission suspended the license of a local retailer for four violations of selling liquor below the "locally prevailing retail price."

The fantastic and grotesque aspect of this is not only in the penalizing of a man for selling at low prices. It is that the penalizing is according to law—in fact the city-county license commissioners had no alternative if they followed strictly the provisions of the law.

For this ridiculous situation we have to thank the action of a past legislature which wrote into the Revised Laws of Hawaii this section:

"It shall be unlawful for any person holding a retail dealer's license to sell any liquor under such license at any price less than the locally prevailing price."

And the law so stands today though an abortive effort was made to amend it at the 1947 session of the legislature.

And so a dealer who was endeavoring to pass along to his customers savings which he was able to make in liquor on hand, has been penalized by the suspension of his license for one week.

Alice in Blunderland is right!

Why didn't the 1947 legislature go through with the amendment which would have climinated this ridiculous stipulation?

Who put on the pressure or threw the sand in the nachinery of legislation?

## ouse nkets

lanket for truly luxurious while one lightweight virgin wool; 4,175

onth

lankets

60% wool blankets cover less. Secret of its warmth

# Insect Problem Studied Here by Entomologists

Insect pests of the western Pacific face a bleak future with some of the leading entomologists of the nation now in Honolulu to conduct a historic meeting to evolve methods of combatting the tiny visitors.

The three day conference, first of its kind ever held, begins Tuesday and has been arranged by the Pacific science board of the national research council in conjunction with the navy department, Hawaiian Sugar Planters association and other scientific groups.

Arriving from the mainland this morning were Harold J. Coolidge, executive secretary of the science board; Dr. C. P. Causen, principal entomologist of the U. S. bureau of entomology and plant quarantine in Washington; D. C. and Theodore R. Gardner of the nation entomology bureau.

Edward H. Bryan Jr. is the Honolulu representative of the science board who will participate as well as representatives from HSPA.

From the meeting a detailed set of quarantine regulations covering insect pests of Micronesia is expected to evolve.

### High Tides Force Closing of Moana Hotel Dining Room

Because of the damaging effect of recent high tides and waves the dining room of the Moana hotel will be closed Wednesday, October L.

### MIGHTY MITE

PALO ALTO, Calif., Sept. 29 (LR) -A barooka-sized atom-smasher that will generate the first artificial cosmic rays and the highest charge of electricity ever produced by man has been revealed here

The three foot long electron linear accelerator, a liny cousin to the eyelotrum, already has produced energies of more than 1,500,000 electron volts





to 796 247

### HOTEL PUNO

Sr.

APARTADO No. 129 TELEFONO 43 Habitación—Rom 15 Nº 001913

Agradeceremos pagar la cuenta el dia de su presentación Bilis payable upon presentation.

Mes Oct. de Año 1947

	Day L	7		
Habitación Appartment Con pensión With pension	12 =			
Comedor Dining-Room Té, Café Tea Coffee	6=	41=		
Bar Cantina Bar Acom Lavandería Laundry				
Teléfono Telephone Garage				
Total del día Day total  Saldo anterior Forwad	18=	4=		
Subtotal Pagos Payment		18= 22=		

INO OLVIDE ENTREGAR LA LLAVE!! FACTURACION

importe factura	22	
Servicio 10%	3.	20
Ley No. 10626		10
Ley No. 10167	*************************	20
Gastos Oficina	•••••••••••	
TOTAL S/O.	25	50

Rm. 400 For ansmally 40 Em. n. of Chala across bays. from Chalg 40 lem. 533 Valle de Vaca a.e. Masea Vallery not S. Valledo Ware Parlenenis ac. SEEDY 113 SON IN HADAITTA HEVALL IN

## avena machacade Hs TOTALES SALDOS AMTERIORES RECIBO DE ALMACEN TOTAL ENTREGAS EN EL DIA SALDOS ENCARGA

Montegrunen Huarramaya Lihrenca Charctanine x anchu Guebrada

### OCTUBRE

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1947

OCTUBES		NOVIEMBRE
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100. mes — S. Remigio — 274—91

Cilif V. miller The middle Huallaga River in OfaR files) Jan. 1947 explant geographic emphasison wits. Maccurdy, E. (ed.)
The notebooks of
Leonardo da Vinci
1-1747, garden city, N.y.
1941-42

The notebooks of
feonardo da Vinci

edited by Edward MacCordy

1-1247 garden City, N.y.

1941-42

Translated into
English and arranged
by subject.

### GRAN HOTEL "COCHABAMBA"

COCHABAMBA-BOLIVIA

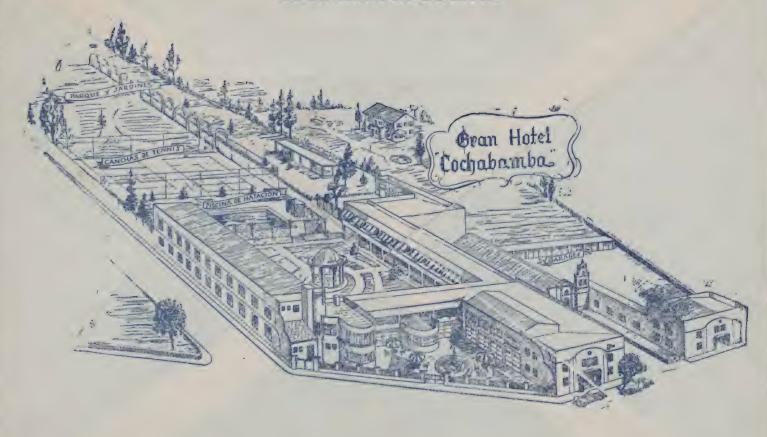
DIRECCION TELEGRAFICA "GRANHOTEL"

CASILLA DE CORREO No. 500

TELEFONO 1224-1225

### ARAUCO PRADO Y CO.

COCHABAMBA-BOLIVIA



CHICLAYO - PERO

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DIRECCION TELEGRAFICA "ROYAL"

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F.R. Forberg # 27800

